

Hand Therapy

Mallet Finger Injury

Contact Details

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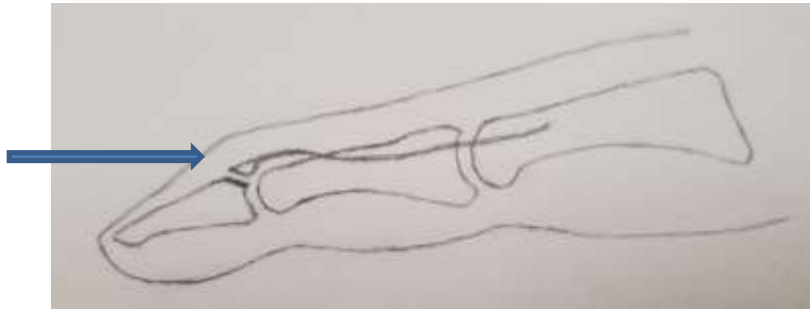
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Bony mallet injury

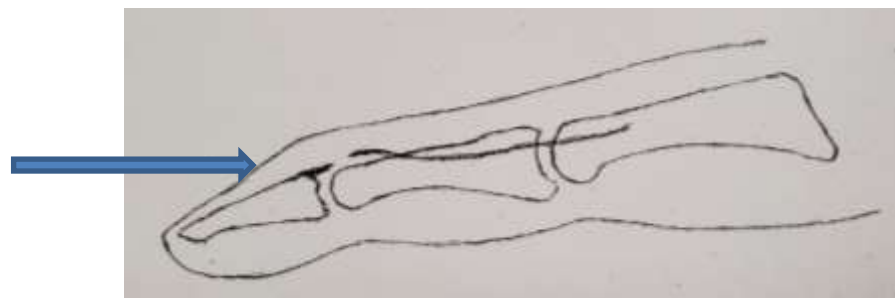
A small piece of bone is pulled off along with the extensor tendon



Distal phalanx middle phalanx proximal phalanx

Soft tissue mallet injury

A tear/break in the extensor tendon
The bone is not broken



Distal Phalanx Middle Phalanx Proximal Phalanx

What is a Mallet finger?

The extensor tendon attaches the muscle to the end of the bone. It straightens the end joint of your finger. When the extensor tendon is torn, you are unable to straighten the end joint of your finger and the tip of your finger droops.

Soft tissue mallet injury

A soft tissue mallet injury is when the extensor tendon is torn at the base of the end bone (distal phalanx). Soft tissue mallet injuries take longer to heal than bony mallet injuries.

Bony mallet injury

A bony mallet injury is when the extensor tendon pulls a piece of fragment off the base of bone (distal phalanx). The tendon remains attached to the small fragment of bone. The tendon is not torn in this injury.

Symptoms

- You are unable to fully straighten the tip of your finger.
- The tip of the finger stays in a bent position.
- Swelling over the end of the finger.
- Pain at and around the end joint of your finger.
- You may feel a bump on the back of the end joint of your finger.

What can you do to reduce swelling in your finger?

It is normal to have swelling after the injury or surgery. The swelling after a mallet injury can last for several months. Redo the tapes on the splint if you feel pins and needles in the fingertip or if you feel the tapes are too tight.

Treatment of mallet injury

Most mallet injuries are treated with splinting. Some require surgical treatment.

Mallet splints

Most mallet injuries heal well with splinting. There are different designs of mallet splints. They are made to support the end joint of your finger in a straight position to allow the bone/tendon to heal.

Splinting instructions

- The splint is worn **continuously** 24 hours a day, removing daily for hygiene, for at least 6 weeks with bony mallet injuries and at least 8 weeks with soft tissue mallet injuries.
- The splint can be washed in lukewarm soapy water
- Do not attempt to re-shape the splint yourself
- If the end joint bends during the continuous splinting period, it will slow the healing. You will need to re-start splinting again from the beginning.
- You need to wear your splint all the time including when you are in bath/shower and when you are in bed.
- You can get your splint wet in the bath/shower but remove immediately to dry the finger and splint.

How should you remove and put the splint back on?

Remove your splint once a day to clean and dry your finger.

- When you remove your splint to clean your finger you must not allow the fingertip to bend or leave your finger unsupported. You can place the hand on a flat surface/table, removing your splint to clean your finger. After cleaning, reapply the splint straightaway.

How to remove a volar (palm based) mallet splint



- Place your finger flat on a table



- Gently pull the splint out of your finger

How to remove a dorsal (back of hand) mallet splint



- Place your finger flat on a table
- Undo the 2 round tapes



- Take the splint off your finger leaving the sticky tape on the palmar side of the finger



- Gently pull the sticky tape off your finger.

How to put on a dorsal (back of hand) mallet splint



- Place a sticky tape on a flat surface
- Use your other hand to hold the end joint of the finger straight and place the finger on the sticky tape. The sticky tape should not cover the palmar side of the middle joint.



- Use your other hand to put the splint on top of your finger
- Use your other hand to pull the tape up from the front of your finger as far as to the splint and stick the tape on top of the splint
- Put 2 round tapes to secure the splint on your finger

Splinting schedule

Please wear your splint: (delete as appropriate)

- Bony Mallet: 6 weeks from date of splint application
- Soft Tissue Mallet: 8 weeks from date of splint application

Exercises during the period of continuous splinting

Exercise your elbow, shoulder, wrist, and any joints that are not included in the splint.

With the splint on, please do these exercises x4 daily, x5 repetitions

- Gently bend and straighten the middle joint and knuckle joints of your splinted finger



Volar splint



Dorsal splint



Another style of
Mallet Splint

- Using your other hand bend the uninjured fingers down into a fist, then straighten fingers up



Can you use your hand while you are still wearing a splint?

- You may use your unaffected fingers for light activities.
- You must not use your hand for heavy lifting or activities that require a tight grip.
- Do not engage in contact sports
- It is your responsibility to decide if you can safely drive and grip the steering wheel in an emergency. It is advisable to contact your insurance company to inform them that you are wearing a splint.

6- OR 8-WEEKS POST-APPLICATION OF SPLINT

Test the tendon by:

Test 1: Remove splint and lift hand off table if finger immediately bends replace splint and continue wearing 24 hours a day for a further 6 or 8 weeks.



Test 2: Bend fingers and straighten, **if unable to fully straighten after bending replace splint and continue wearing 24 hours a day for a further 6-8 weeks and repeat above assessment.**

If you **can** straighten your finger after completing the above tests:

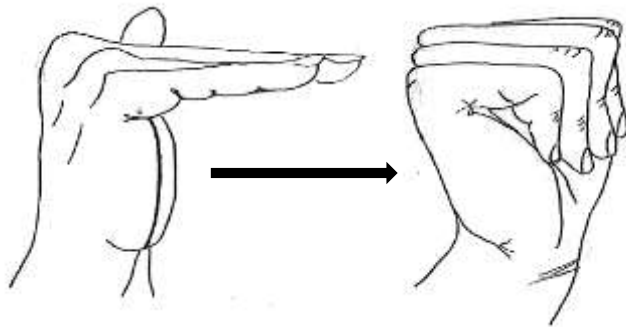
- Remove the splint during the day but continue to wear the splint at night for a further 2 weeks.
- Start using your hand for light activities and over the next 2-4 weeks gradually use your hand as normal and go back

to playing contact sports. However, boxing should be delayed for another 4 weeks

- If you have a job which involves heavy tasks / lifting then continue to wear the splint at work for a further two weeks then gradually wean off wearing it (or you are doing heavier tasks at home eg food shopping, DIY, gardening, hoovering etc)
- Commence the following exercises x4 daily, x10 repetitions.

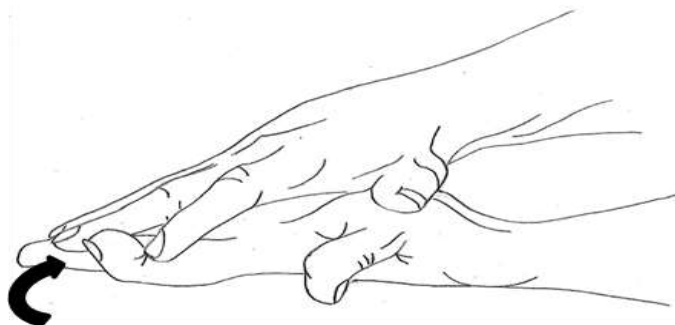
1. Flat fist

- Bend the fingers down to touch your palm but keeping the end joint of fingers straight.
- Straighten your fingers.



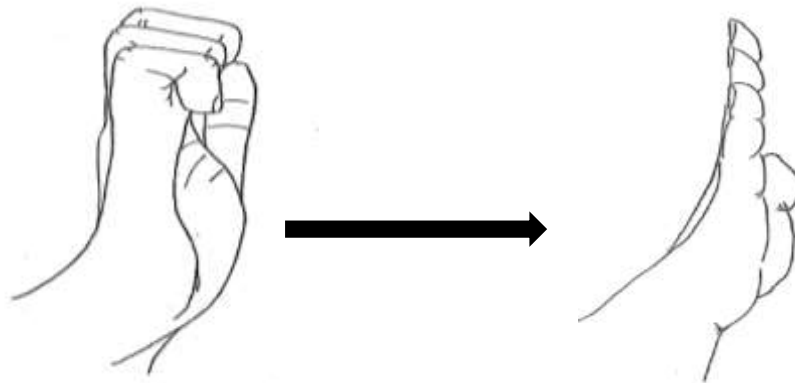
2. Isolated bending at the end joint of finger

- Place your other hand below the top joint of your finger, keeping the rest of your finger straight.
- Only bend the end joint of your finger.
- Straighten your finger.



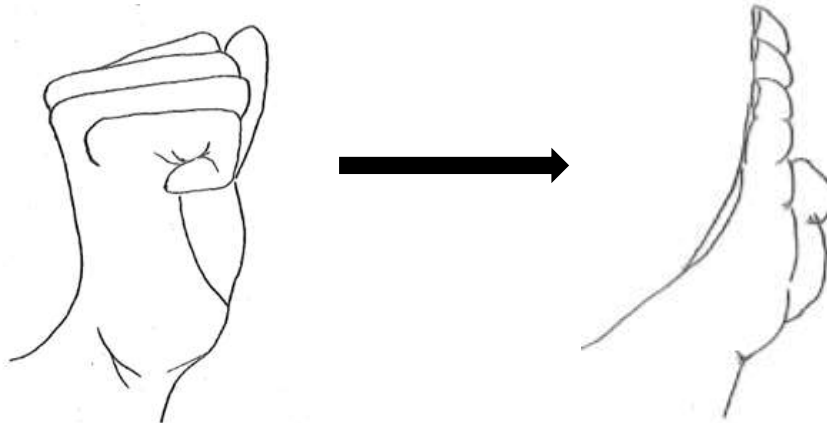
3. Hook fist

- Only bend the end joints and middle joints of the fingers (keeping the knuckle joints straight).
- Straighten your fingers.



4. Full fist (but not to make a forceful fist)

- Curl all the fingers into your palm
- Straighten the fingers



What outcome can you expect after a mallet injury?

Most mallet injuries heal well with splinting alone. The aim of splinting is to return the end joint to as near normal as possible. There could be a slight loss of full extension at the end joint of your finger at the completion of treatment.

It may take a few months for the swelling and tenderness to settle as well as the redness over the back of the finger. You may also find the skin of the finger may become more sensitive. You can massage the skin with a light moisturiser to help desensitise the skin.

Bony mallet injuries may leave a bump/deformity over the end joint of the finger due to the fracture. You may not regain full normal or pre-injury movement in the end joint of your finger. This generally doesn't affect the overall function of the hand.

Occasionally the tendon may not heal at the completion of splinting. It may be necessary to do another course of splinting. If extension still does not improve and the finger remains painful, then you need to see the consultant/your GP for other options.

Your notes:



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